

## **STATIONARY SOURCE PERMIT TO OPERATE**

This permit supersedes your permit dated August 25, 1998 amended November 10, 1998.

In compliance with the Federal Clean Air Act and the Commonwealth of Virginia Regulations for the Control and Abatement of Air Pollution,

City of Manassas  
Electrical Department  
P.O. Box 560  
Manassas, VA. 20110  
Registration No.: 72004

is authorized to operate

a peaking power generation facility

located at

8885 Church Street  
Manassas, Virginia

in accordance with the Conditions of this permit.

Approved on                      September xx, 2004.

Robert G. Burnley  
Director, Department of Environmental Quality

Permit consists of 7 pages.  
Permit Conditions 1 to 19.

PERMIT CONDITIONS - the regulatory reference or authority for each condition is listed in parentheses ( ) after each condition.

### **APPLICATION**

1. Except as specified in this permit, the permitted equipment is to be operated as represented in the permit applications dated July 14, 2003, December 2, 1996, September 16, 1994, including amendment sheets dated August 6, 1998, April 16, 1998, January 10, 1997, March 10, 1997, December 8, 1997, and May 16, 1995. Any changes in the permit application specifications or any existing facilities which alter the impact of the facility on air quality may require a permit. Failure to obtain such a permit prior to construction may result in enforcement action.  
(9 VAC 5-80-830)

### **PROCESS REQUIREMENTS**

2. **Equipment List** - Equipment to be operated at this facility consists of:

Existing equipment:

- Three (3) Detroit Model #9163-7305 diesel engine powered electric generators rated at 1000 kW each (1233 engine kW) (Ref. Nos. 1, 2, and 4)
  - One (1) Caterpillar Model #3512 DITA diesel engine powered electric generator rated at 1135 kW (1233 engine kW) (Ref. No. 3);
  - Two (2) Caterpillar 3516 DTA diesel engine powered electric generator sets rated at 1550 kW each (1611 engine kW) (Ref Nos. 5 and 6);
3. Nitrogen Oxide (NO<sub>x</sub>) emissions from the Caterpillar electric generators, Unit Ref. Nos. 3, 5 and 6 shall be controlled by having the injection timing retarded by 1.5 degrees from the standard production timing. Each generator set shall be provided with adequate access for inspection.  
(9 VAC 5-80-1180 and 9 VAC 5-50-260)

### **OPERATING/EMISSION LIMITATIONS**

4. **Fuel** - The approved fuel for the Caterpillar and Detroit engines (Ref. Nos. 1-6) is No. 2 distillate fuel oil. A change in the fuel may require a permit to modify and operate.

The sulfur content of the oil to be burned in the Caterpillar and Detroit engines shall not exceed 0.5% by weight per shipment.  
(9 VAC 5-80-850)

5. **Fuel Certification** - The permittee shall obtain a certification from the fuel supplier with each shipment of distillate oil. Each fuel supplier certification shall include the following:
- a. The name of the fuel supplier;
  - b. The date on which the distillate oil was received;
  - c. The volume of distillate oil delivered in the shipment;
  - d. A statement that the distillate oil complies with an acceptable ASTM specifications for numbers 1 or 2 fuel oil, or that the diesel fuel complies with the ASTM specification D975,
  - e. The sulfur content of the distillate oil or diesel fuel.  
(9 VAC 5-80-850)
6. **Electrical Generation, Caterpillar Model #3512 generator** (Ref. No.3) - The Caterpillar Model #3512 shall not generate more than 189,545 kW-hrs of electricity per year, calculated monthly as the sum of each consecutive twelve-month period.  
(9 VAC 5-80-850)
7. **Electrical Generation, Six Caterpillar and Detroit generators** (Ref. Nos.1-6)- The six (6) Caterpillar and Detroit generators shall not generate more than 1,208,245 kW-hrs of electricity per year, calculated monthly as the sum of each consecutive twelve-month period.  
(9 VAC 5-80-850)
8. **Emission Limits** - Emissions from the operation of the Caterpillar Model No. 3512 (Ref. No. 3) generator shall not exceed the limits specified below:
- |  |                                |               |
|--|--------------------------------|---------------|
| Sulfur Dioxide                           | 0.0059 lbs/kW <sub>e</sub> -hr | 0.56 tons/yr  |
| Nitrogen Oxides<br>(as NO <sub>2</sub> ) | 0.0371 lbs/kW <sub>e</sub> -hr | 3.52 tons/yr  |
| Carbon Monoxide                          | 0.0079 lbs/kW <sub>e</sub> -hr | 0.75 tons/yr  |
| Volatile Organic<br>Compounds            | 0.0012 lbs/kW <sub>e</sub> -hr | 0.11 tons/yr  |
| PM-10                                    | 0.0011 lbs/kW <sub>e</sub> -hr | 0.11. tons/yr |
- These emissions are derived from estimated overall emission contributions from operating limits. Exceedance of the operating limits shall be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits therefore may be determined as stated in Condition numbers 3, 4, 5 and 6.  
(9 VAC 5-80-850)
9. **Emission Limits** - Emissions from the operation of the Caterpillar and Detroit generators (Ref. Nos.1 - 6) shall not exceed the limits specified below:

Sulfur Dioxide	4.04 tons/yr
Nitrogen Oxides (as NO <sub>2</sub> )	24.3 tons/yr
Carbon Monoxide	14.0 tons/yr
Volatile Organic Compounds	0.61 tons/yr
PM-10	0.70. tons/yr

These emissions are derived from estimated overall emission contributions from operating limits. Exceedance of the operating limits shall be considered credible evidence of the exceedance of emission limits. Compliance with these emission limits therefore may be determined as stated in Condition numbers 3, 4, 5,6 and 7. (9 VAC 5-80-850)

10. **Visible Emission Limit** - Visible emissions from the operation of each Caterpillar and Detroit generator shall not exceed 20 percent opacity, except for one six-minute period in any one hour of not more than 30 percent opacity as determined by EPA Method 9 (reference 40 CFR 60, Appendix A). This condition applies at all times except during startup, shutdown and malfunction.  
(9 VAC 5-50-80 and 9 VAC 5-80-850)
11. **Test/Monitoring Ports** – Upon request by the DEQ, the permitted facility shall be modified as necessary so as to allow for emissions testing upon reasonable notice at any time, using appropriate methods.  
(9 VAC 5-50-30 F)

## **RECORDS**

12. **On Site Records** - The permittee shall maintain records of emission data and operating parameters as necessary to demonstrate compliance with this permit. The content and format of such records shall be agreed upon with the Air Compliance Manager, Northern Virginia Regional Office. These records shall include, but are not limited to:
- The yearly generation of power by each of the Caterpillar generators (Ref. Nos. 3,5, and 6) in kilowatt-hours, calculated monthly as the sum of each consecutive twelve-month period.
  - The yearly generation of power by each of the Detroit generators(Ref. Nos. 1,2, and 4 ), in kilowatt-hours, calculated monthly as the sum of each consecutive twelve-month period.
  - Fuel supplier certification and supporting data as provided in Conditions 4 and 5.
  - Scheduled and unscheduled maintenance and operator training.

These records shall be available for inspection by the DEQ and shall be current for the most recent five years.

(9 VAC 5-80-900)

**GENERAL CONDITIONS**

**13. Right of Entry** - The permittee shall allow authorized local, state, and federal representatives, upon the presentation of credentials:

- a. To enter at reasonable times upon the permittee's premises on which the facility is located or in which any records are required to be kept under the terms and conditions of this permit;
- b. To have access to and copy at reasonable times any records required to be kept under the terms and conditions of this permit or the State Air Pollution Control Board's Regulations;
- c. To inspect at reasonable times any facility, equipment, or process subject to the terms and conditions of this permit or the State Air Pollution Control Board's Regulations; and
- d. To sample or test at reasonable times.

For purposes of this condition, the time for inspection shall be deemed reasonable during regular business hours or whenever the facility is in operation. Nothing contained herein shall make an inspection time unreasonable during an emergency.  
(9 VAC 5-170-130)

**14. Violation of Ambient Air Quality Standard** - The permittee shall, upon request of the DEQ, reduce the level of operation or shut down a facility, as necessary to avoid violating any primary ambient air quality standard and shall not return to normal operation until such time as the ambient air quality standard will not be violated.  
(9 VAC 5-20-180 I)

**15. Maintenance/Operating Procedures** - The permittee shall take the following measures in order to minimize the duration and frequency of excess emissions with respect to equipment which affects such emissions:

- a. Develop a maintenance schedule and maintain records of all scheduled and non-scheduled maintenance.
- b. Maintain an inventory of spare parts.
- c. Have available written operating procedures for equipment. These procedures shall be based on the manufacturer's recommendations, at a minimum.
- d. Train operators in the proper operation of all such equipment and familiarize the operators with the written operating procedures. The permittee shall maintain

records of the training provided including the names of trainees, the date of training and the nature of the training.

Records of maintenance and training shall be maintained on site for a period of five years and shall be made available to DEQ personnel upon request.  
(9 VAC 5-50-20 E)

**16. Permit Suspension/Revocation** - This permit may be suspended or revoked if the permittee:

- a. Knowingly makes material misstatements in the application for this permit or any amendments to it;
- b. Fails to comply with the terms or conditions of this permit;
- c. Fails to comply with any emission standards applicable to the equipment listed in Condition 2;
- d. Causes emissions from this facility which result in violations of, or interferes with the attainment and maintenance of, any ambient air quality standard;
- e. Fails to operate this facility in conformance with any applicable control strategy, including any emission standards or emission limitations, in the State Implementation Plan in effect on the date that the application for this permit is submitted;
- f. Fails to comply with the applicable provisions of 9 VAC 5-80-1100, and Article 8 and Article 9 of 9 VAC 5 Chapter 80.

(9 VAC 5-80-1010)

**17. Change of Ownership** - In the case of a transfer of ownership of a stationary source, the new owner shall abide by any current permit issued to the previous owner. The new owner shall notify the Air Compliance Manager, Northern Virginia Regional Office of the change of ownership within thirty days of the transfer.

(9 VAC 5-80-940)

**18. Registration/Update** - Annually the permittee will be required to provide information to the DEQ or the Board, which will be used to maintain the currency of the stationary source emission database. The information requested may include, as appropriate: process and production data; changes in control equipment; and operating schedules. Such requests for information from the DEQ will either be in writing or by personal contact. The availability of information submitted to the DEQ or the board will be governed by applicable provisions of the Freedom of Information Act, §§ 2.1-340 through 2.1-348 of the Code of Virginia, § 10.1-1314 (addressing information provided to the board) of the Code of Virginia, and 9 VAC 5-170-60 of the State Air Pollution Control Board Regulations. Information provided to federal

officials is subject to appropriate federal law and regulations governing confidentiality of such information.  
(9 VAC 5-80-900)

19. **Permit Copy** - The permittee shall keep a copy of this permit on the premises of the facility to which it applies.  
(9 VAC 5-80-860 D)